Greater Product Differentiation in the Grain Industry

Remarks by David R. Shipman
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Grain Inspection, Packers and Stockyards Administration

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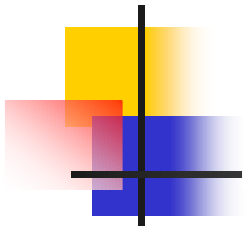
Changing Agriculture

- **“Our IP has grown from nothing three years ago to a fairly good size today. Within three to five years, half our total grain usage will be identity preserved.”** (Remarks by Ron Olson, General Mills Grain Division, September 2001).

- **“In terms of the export market we see approximately three percent being in some fashion identity preserved. I see that increasing…to as much as 30 percent.”** (Ruth Kimmelshue, North American Grain and Oilseed, Cargill, September 2001).

- **“I do not see the niche market comprising more than 10 percent in the next five years. The majority of corn and soy produced today is for the feed market, and feed markets are not very amenable to high margins.”** (Nicholas Kalaitzandonakes, University of Missouri, September 2001).

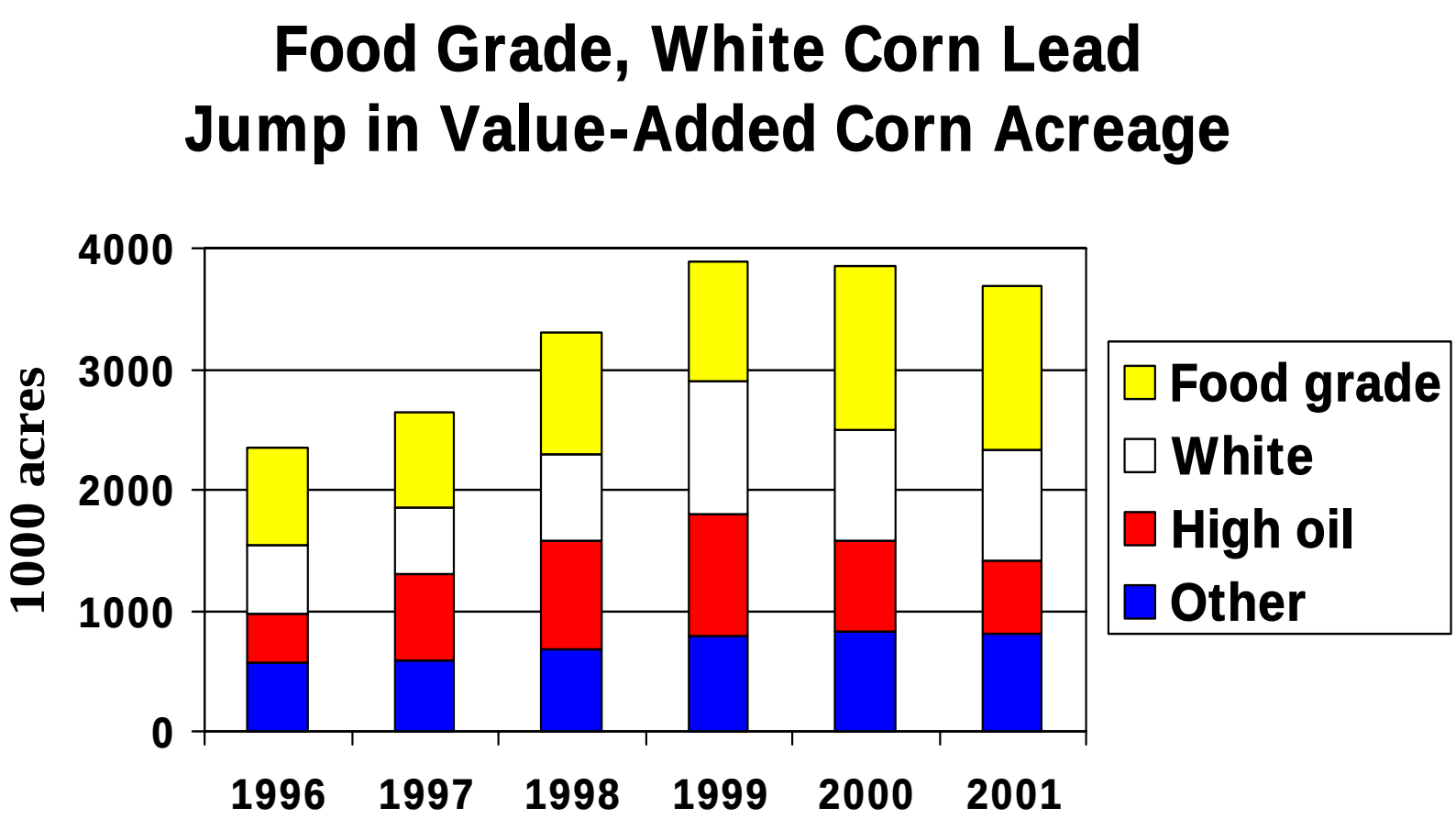



SEED / Production
Mainstream commodity (grade, class, special factors)
END USER

Export Grain Shipments

	% of Export Shipments	
# of Lots	1990	2001
1 Lot	70	55
2 Lots	19	26
5 Lots	0.7	3.4

Non-Bulk Grains Expand as Markets Become More End-Use Specific

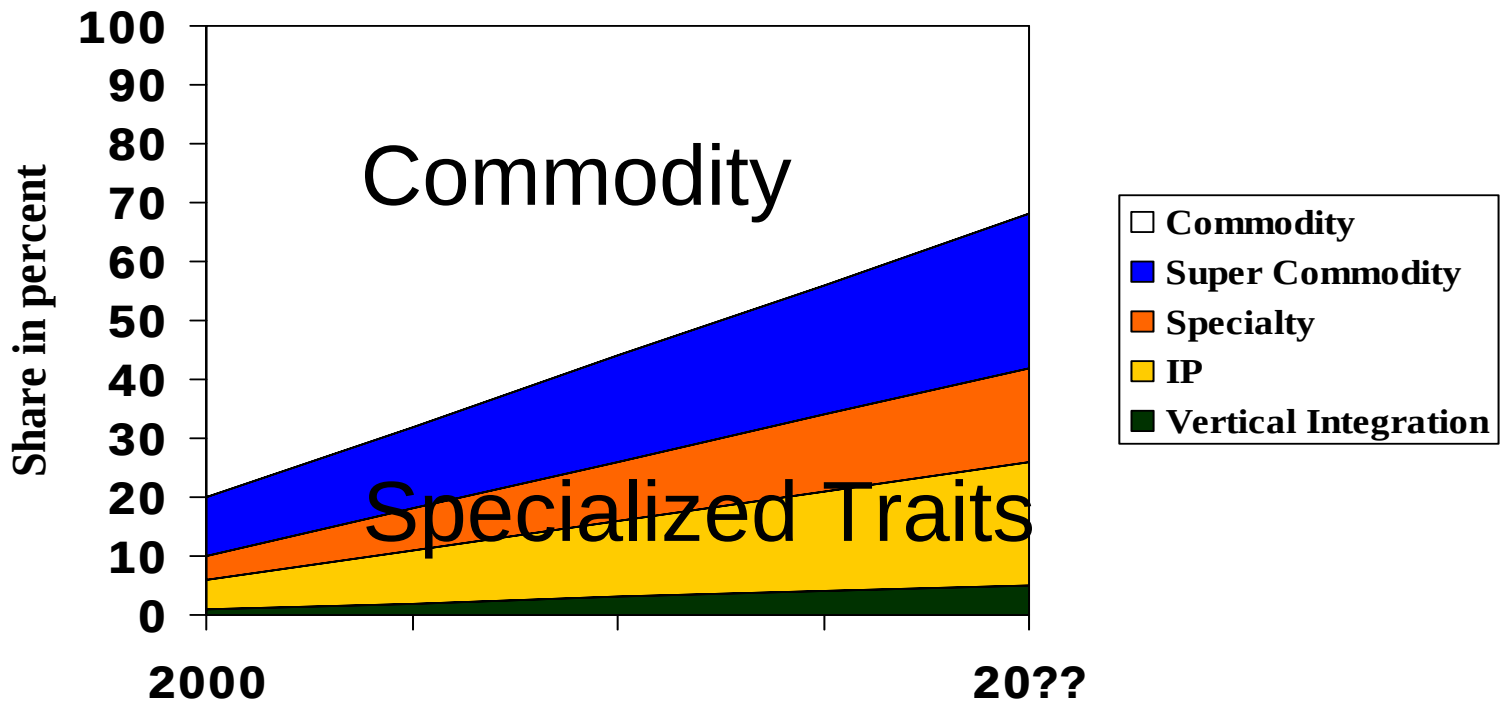


Source: U.S. Grains Council

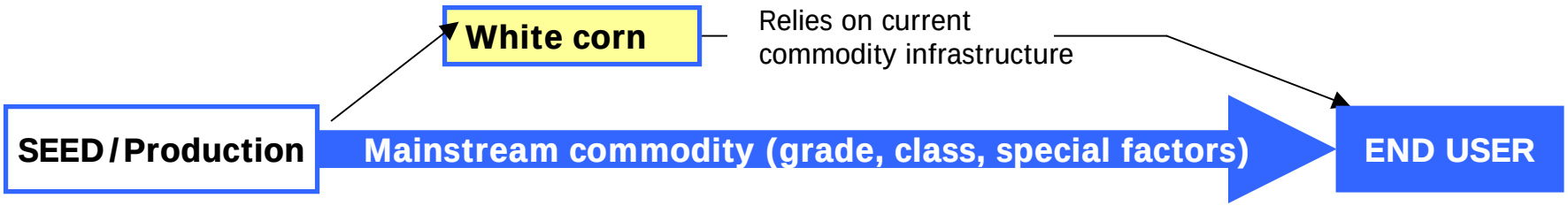
Value-Added Trait Soybeans

Trait	Use
High-Phytase	Reduced-pollution soybean meal for animal feed
High-Stearate	Higher-value oil. Can be used for margarine without any hydrogenation.
High-Isoflavone	Healthier soyfoods (cancer prevention).
Low Null (lipoxygenase)	Reduced off-flavors

Expansion in Specialty Crops



(*) Grains with specialized traits typically command a premium in the marketplace.


White corn
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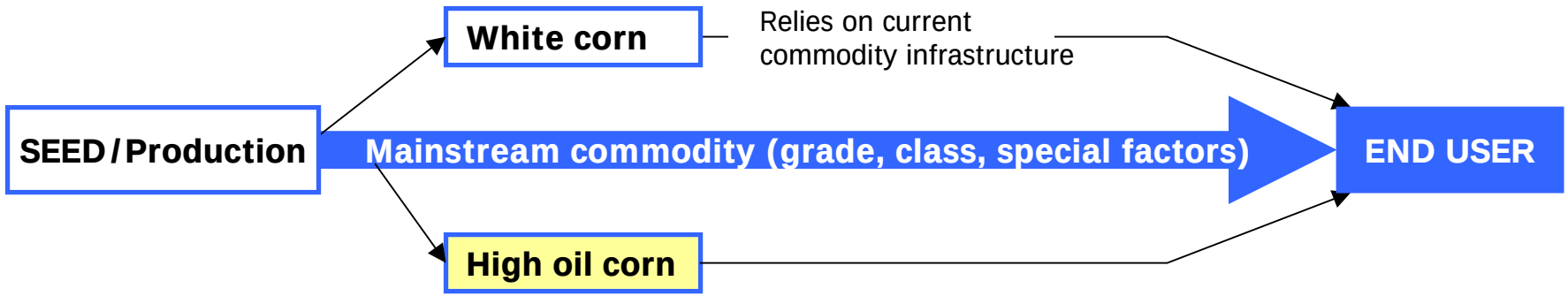
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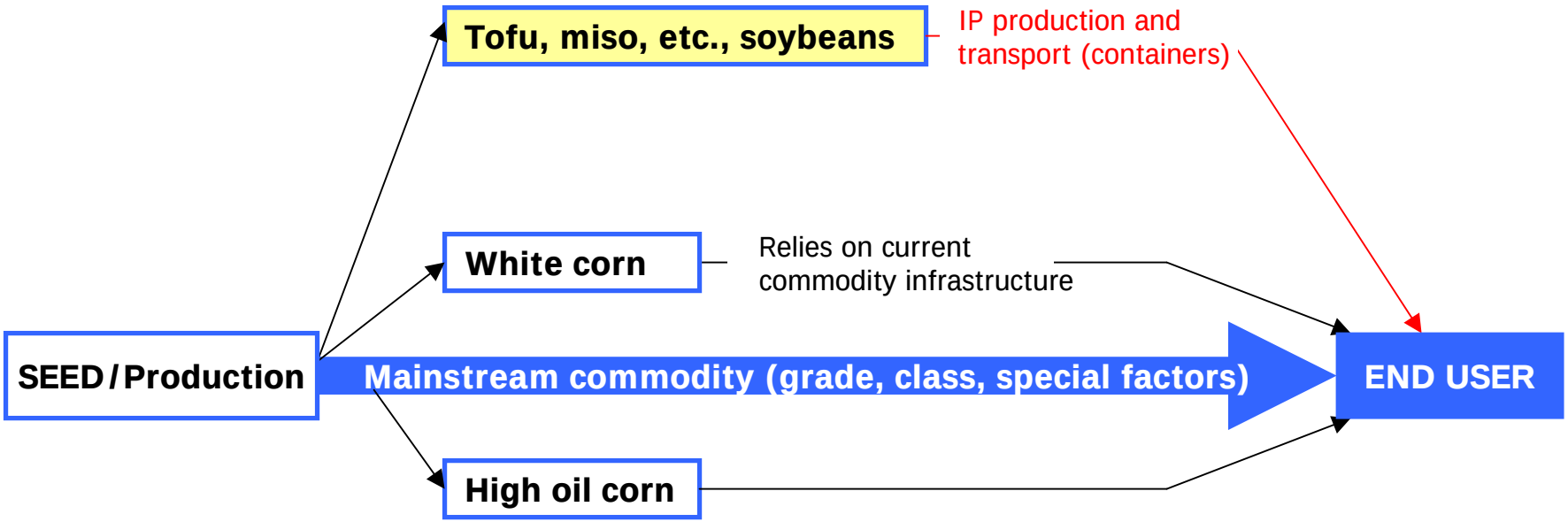
High oil corn


Tofu, miso, etc., soybeans
IP production and
transport (containers)
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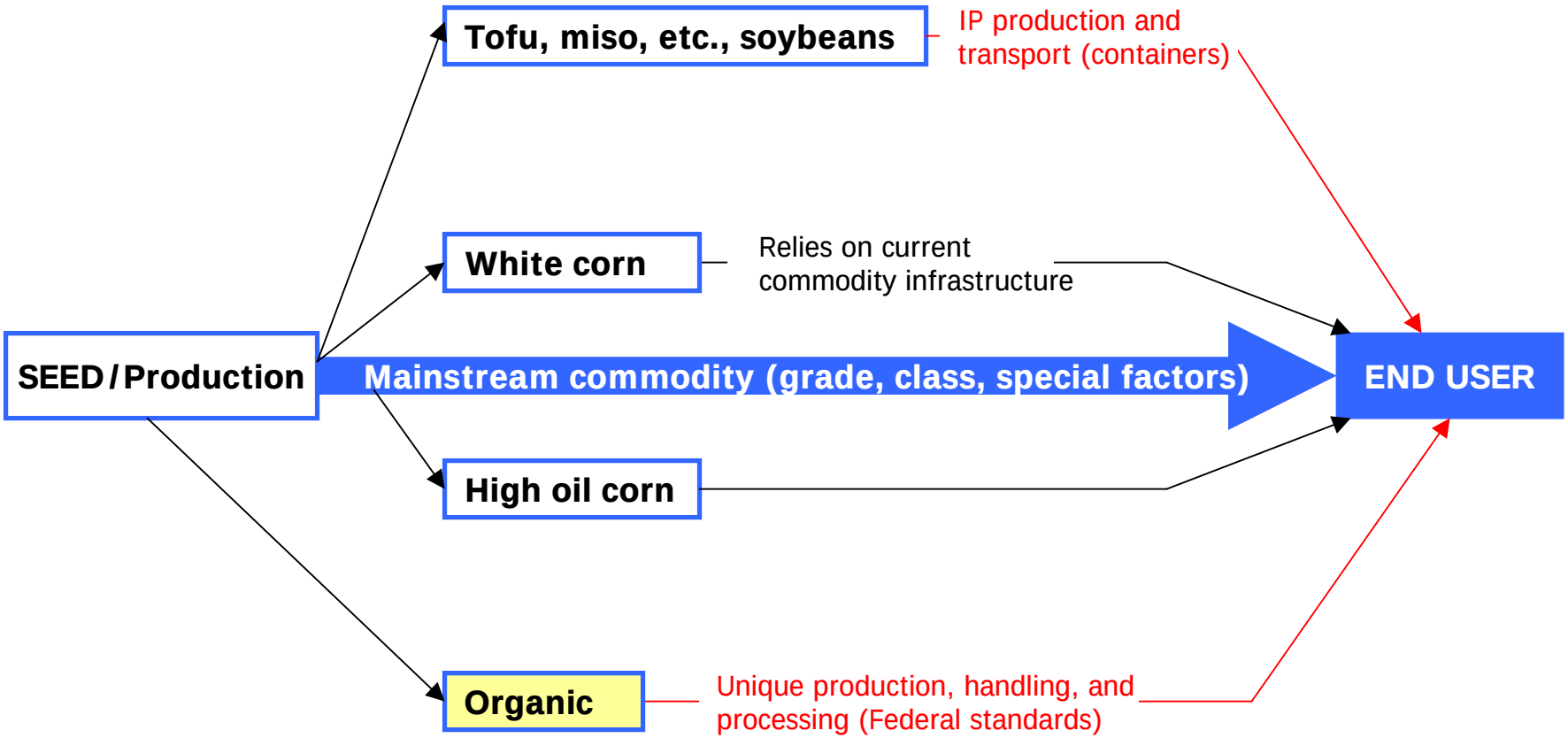
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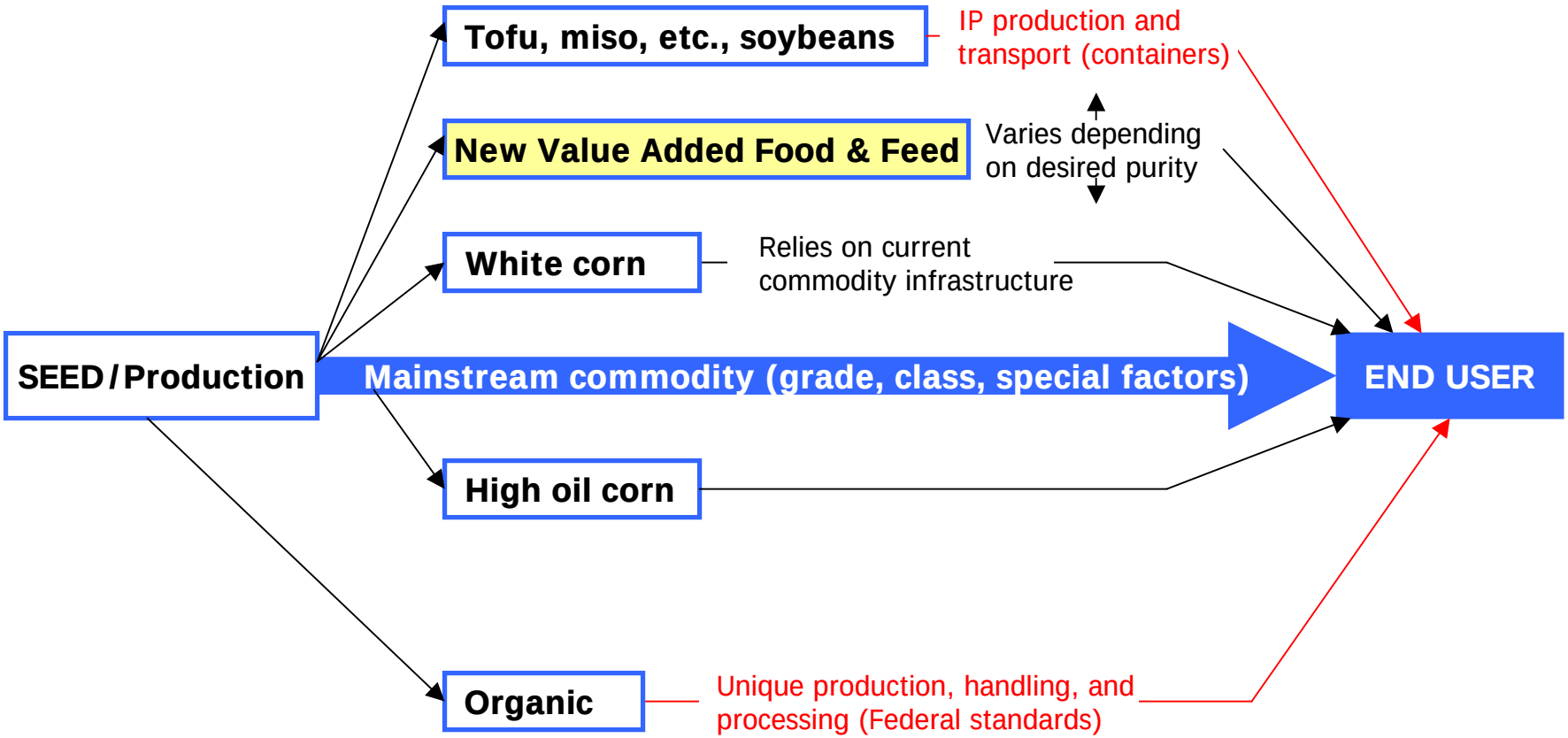
Unique production, handling, and processing (Federal standards)


Tofu, miso, etc., soybeans
IP production and transport (containers)
New Value Added Food & Feed
Varies depending on desired purity
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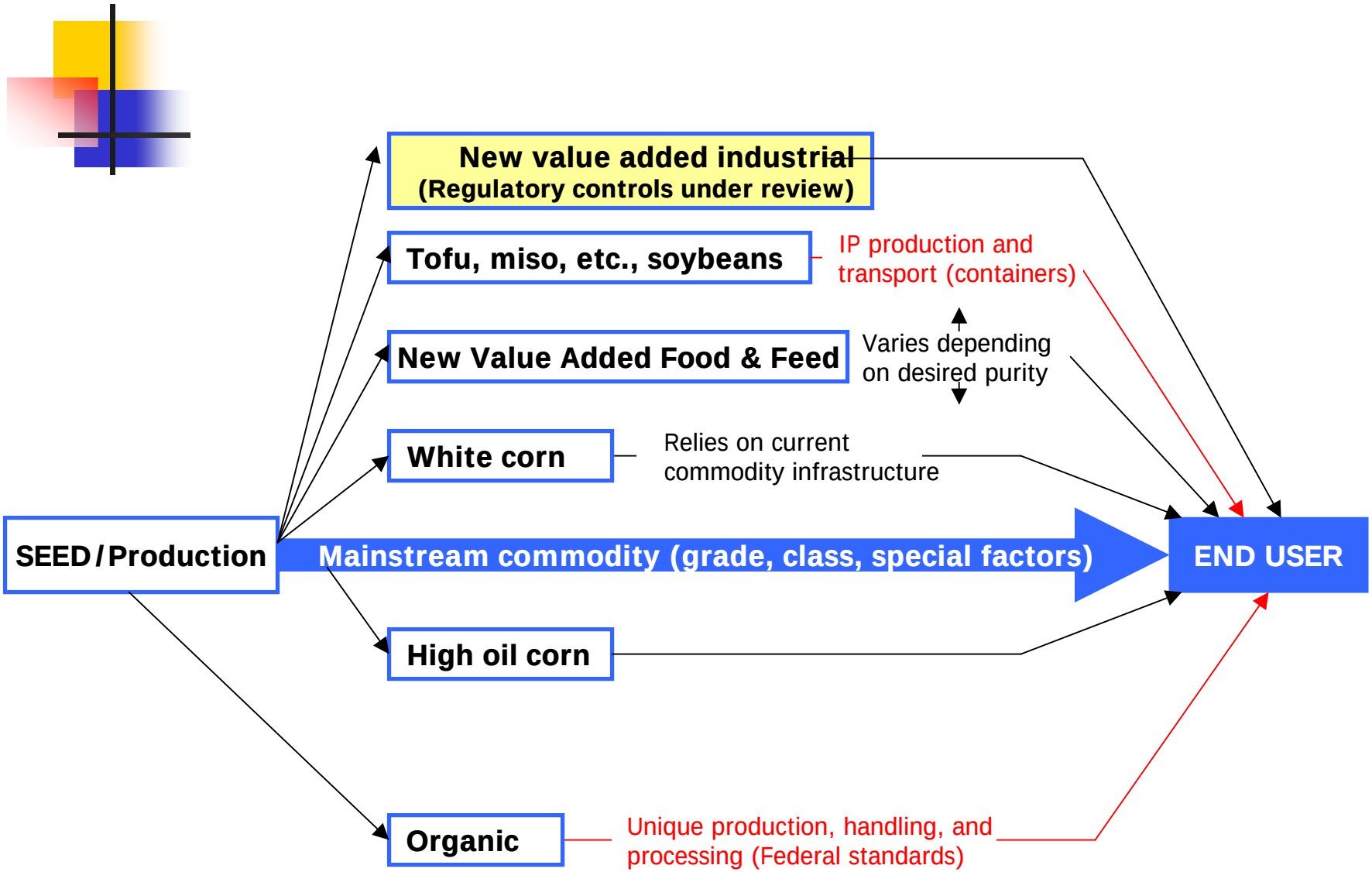
New value added industrial
(Regulatory controls under review)
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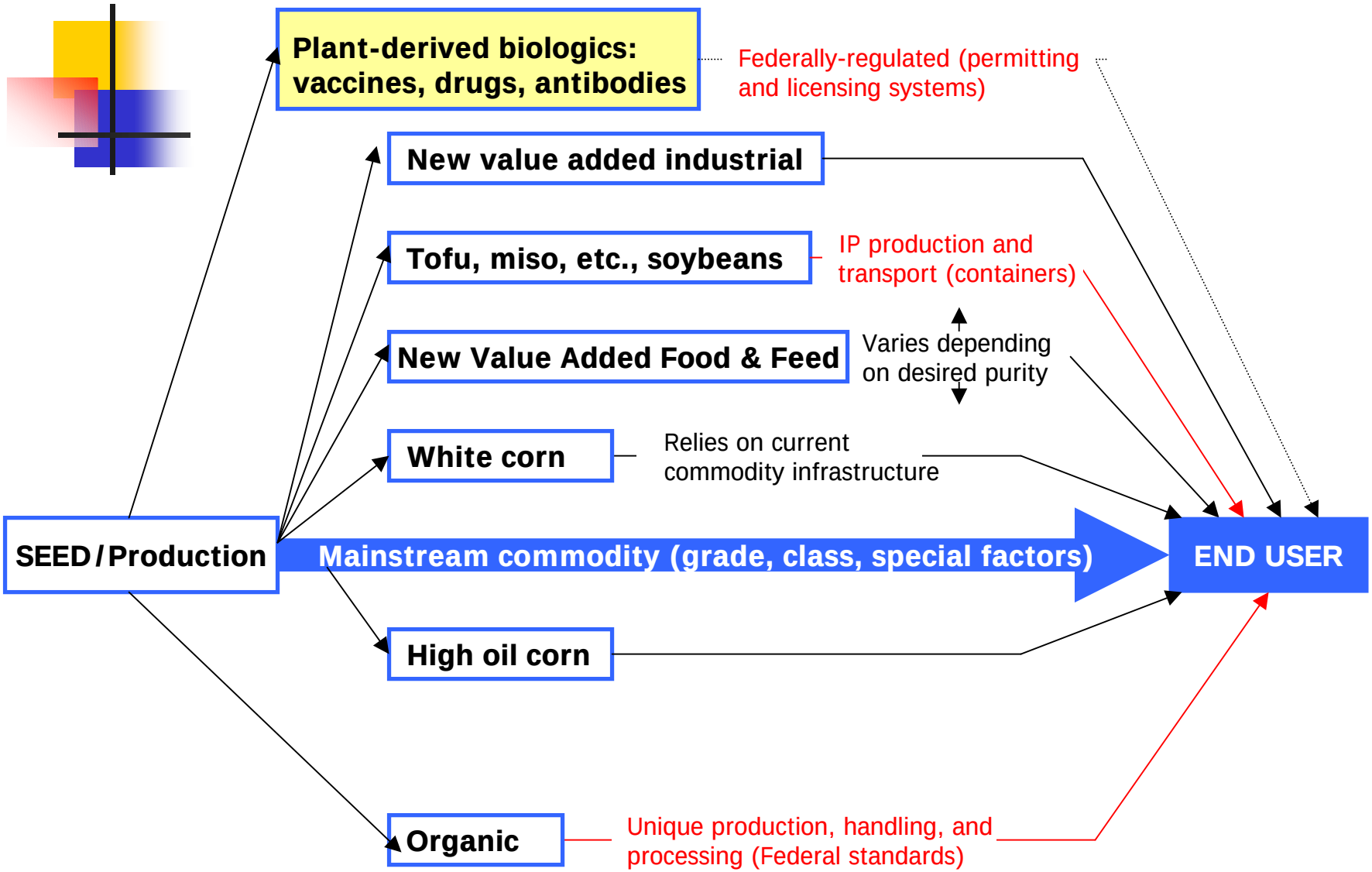
Plant-derived biologics: vaccines, drugs, antibodies
Federally-regulated (permitting and licensing systems)
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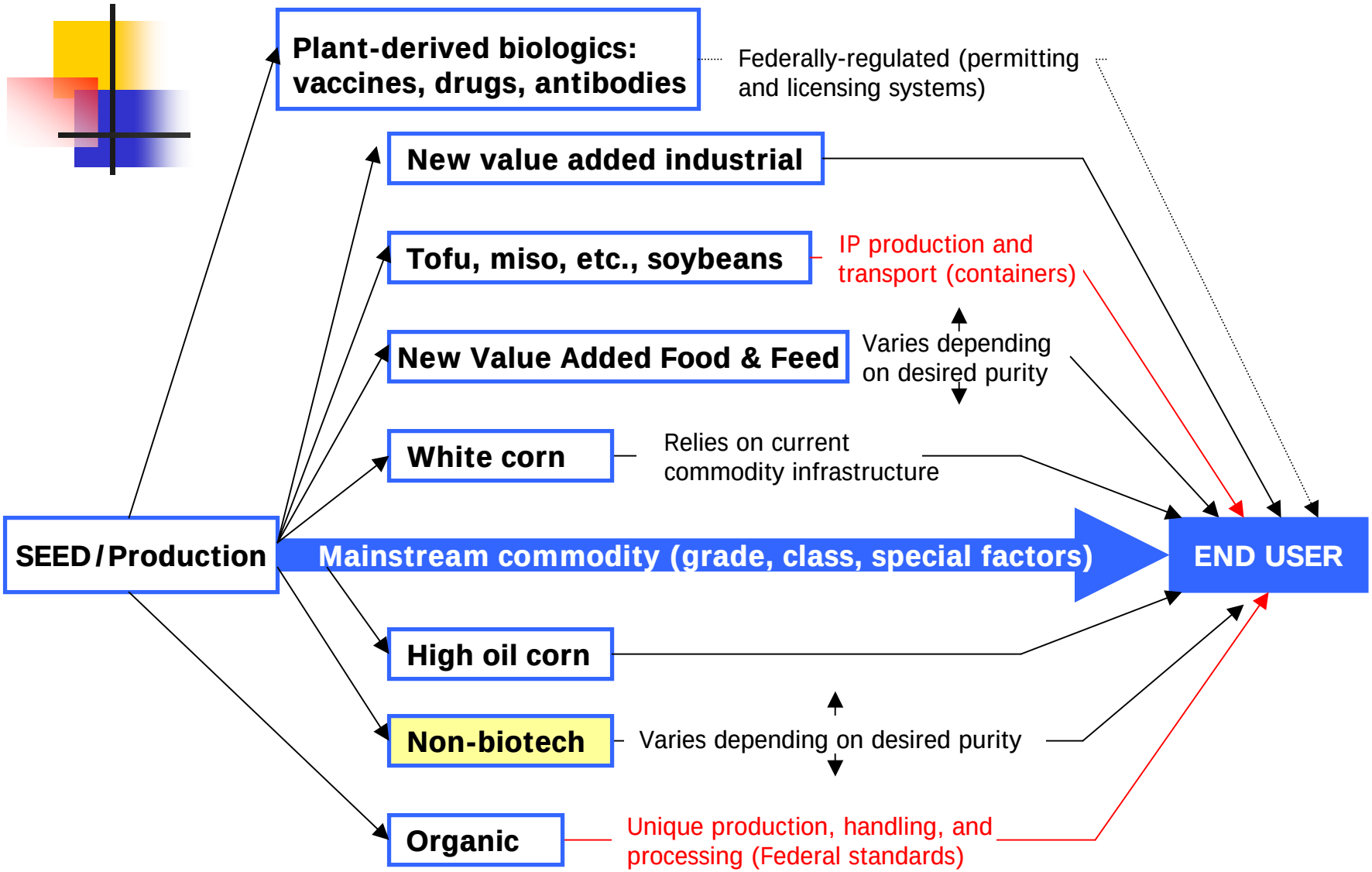
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High oil corn
Non-biotech
Varies depending on desired purity
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Unique production, handling, and processing (Federal standards)

Market Surveys: Elevators Segregating Biotech & Non-Biotech Corn

Year	Elevators Segregating Corn	Elevators Paying Premiums for Non-Biotech
1999 [1]	11%	5%
2000 [2]	24%	10%
2001 [3]	26%	18%

[1] Source: Sparks Companies
[2] Source: Farm Progress Companies
[3] Source: American Corn Growers Association

Challenges to the U.S. Grain Marketing System

1. U.S. regulatory requirements

U.S. Regulatory Requirements

- Crops derived using modern biotechnology are subject to government pre-market review/approval.
- Regulated products produced under confinement standards.
- Market subject to zero tolerance of unapproved events.

Challenges to the U.S. Grain Marketing System

- U.S. regulatory requirements
- Asynchronous regulatory approval in the global market

Biotechnology Approval Systems (Current or Proposed)

- Argentina
- Australia
- Brazil
- Canada
- China
- Czech Republic
- European Union
- India
- Japan
- New Zealand
- Philippines
- Poland
- Russia
- Singapore
- South Africa
- South Korea
- Taiwan

Approval Status of Biotech Corn Hybrids

Event	U.S. Approved	Japan Approved	EU Approved
Bt176	Yes	Yes	Yes
Bt11	Yes	Yes	Yes
Mon810	Yes	Yes	Yes
T25	Yes	Yes	Yes
MonGA21	Yes	Yes	No
Mon810+GA21	Yes	Yes	No
Nk603	Yes	Yes	No

Source: National Corn Growers Association

Challenges to the U.S. Grain Marketing System

- U.S. regulatory requirements
- Asynchronous regulatory approval in the global market
- Mandatory labeling

Mandatory GMO Labeling Laws Overseas

Importer	Date Effective	Products Covered (tolerance, if any)
Taiwan	Jan 2003	Soybeans, soybean meal and flour; corn, corn meal/flour/grit. **5% tolerance**
Australia/ New Zealand	Dec 2001	All food products. **1.0% tolerance**
Japan	Apr 2001	24 food products, including tofu, corn flour, starch, grits, processed foods. **5% tolerance**
South Korea	Mar 2001	Corn, soybeans, bean sprouts. **3% tolerance**
China	Mar 2002	Soybeans, soy oil and meal, corn, corn powder and oil, rapeseed oil and meal, cottonseed, fresh tomatoes, tomato seeds and paste.

U.S. Biotech Labeling Policy

- If a bioengineered food is significantly different from its traditional counterpart such that the common or usual name no longer adequately describes the new food, the name must be changed to describe the difference.
- If an issue exists for the food or a constituent of the food regarding how the food is used or consequences of its use, a statement must be made on the label to describe the issue.
- If a bioengineered food has a significantly different nutritional property, its label must reflect the difference.
- If a new food includes an allergen that consumers would not expect to be present based on the name of the food, the presence of that allergen must be disclosed on the label.

Challenges to the U.S. Grain Marketing System

- U.S. regulatory requirements
- Asynchronous regulatory approval in the global market
- Mandatory labeling
- Mandatory traceability

Basis for Proposed EU Traceability

- To ensure the government's ability to recall biotech products in case of food safety or environmental problems.
- To enhance consumer choice.
- To control and verify labeling claims.

U.S. Position on Traceability

- The USG believes that the EU proposal is not workable or enforceable, would be very expensive to implement, and would not achieve the stated objectives.

Challenges to the U.S. Grain Marketing System

- U.S. regulatory requirements
- Asynchronous regulatory approval in the global market
- Mandatory labeling
- Mandatory traceability
- Uncertain consumer acceptance

Consumer Preferences

- Retailers and food manufacturers are adjusting their purchasing requirements in response to consumer demands, e.g. non-biotech, alternative ingredient, organic, etc..

- Requirements vary according to demand.

Advance Notice of Proposed Rulemaking (ANPR)

- How Can USDA Best Facilitate the Marketing of Grains, Oilseeds, Fruits, Vegetables, and Nuts in Today's Evolving Marketplace

- Comment period:
  - November 30, 2000 to April 16, 2001

- 2,984 comments

Comments on Market Facilitation

- USDA has been assuming appropriate role in market facilitation.
- USDA should remain active in international discussions on issues such as standards, tolerances, and labeling.
- USDA should not establish a biotech/non-biotech definition as part of the grading standards.

Industry Comments

- Testing: USDA could help minimize market inefficiencies caused by inconsistent testing.
  - standardize testing methodologies
  - evaluate testing and laboratory services
  - develop new testing and analytical methods for end-use quality attributes

- Process verification: USDA could facilitate marketing by assisting in the development or oversight of IP and other marketing mechanisms.

Conclusions

- Product differentiation in the grain and oilseed market will continue to expand.
- Crops derived through modern biotechnology will continue to challenge the grain and oilseed markets.
  - Introduction of new products
  - Adherence to new regulatory requirements
- A collective public-private effort is needed to ensure regulatory requirements remain science-based and not market-distorting.
- USDA will facilitate future marketing through voluntary programs supportive of greater product differentiation.

Thank You!

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